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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HO, THOMAS Y

ART UNIT PAPER NUMBER

3677

DATE MAILED: 08/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/904,121

Applicant(s)

VRZALIK, JOHN H

Examiner

Thomas Y Ho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 11-22-99.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 31. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-12, 15-18, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (USPN4409695) in view of Hasegawa (USPN5608932).

As to claim 1, Johnston discloses a bariatric bed comprising:

- A frame (2) adapted to support patients having weights in the range of 500 to 800 pounds (col.1, ln.30-35).
- Said frame (2) including an articulated mattress support (3) for supporting a mattress.
- Said support (3) including at least first (6), second (5), and third (4) articulatable sections positioned to support a leg region, a seat region, and a head region, respectively, of the mattress supported on said support (3) (col.2, ln.60-65).
- An articulation mechanism for articulating the mattress support (3) from a relatively horizontal, lying position to a seated position (fig.4).
- Controls (57, 58) for tilting the mattress support lengthwise.

Johnston fails to disclose or suggest the following limitations:

- A raise-and-lower mechanism for generally raising and lowering the entire mattress support relative to a floor-engaging portion of the frame.

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Hasegawa discloses a an articulated bed with a raise-and-lower mechanism (13) for raising and lowering the entire mattress support (col.3, ln.30-32; col.9, ln.64-67) so the height level can be changed for patient ingress/egress and for medical examination (col.10, ln.1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have a raise-and-lower mechanism, as taught by Hasegawa, to carry out height level changes to aid in patient ingress/egress and for medical examination.

As to claim 2, Johnston fails to disclose or suggest the following limitations:

- Raise-and-lower mechanism comprises a head end torque arm and a leg end torque arm.
- Each said torque arm being pivotally disposed upon said frame.
- Said leg end torque arm being adapted to support said second articulatable section form a first pair of diverse points.
- Said first pair being substantially adjacent said first articulatable section.
- Said head end torque arm being adapted to support said second articulatable section form a second pair of laterally diverse points.
- Said second pair being substantially adjacent said third articulatable section.

Hasegawa discloses an articulated bed having a raise-and-lower mechanism comprising a head end torque arm (77) and a leg end torque arm (78), each said torque arm (77, 78) being pivotally disposed upon said frame (32), said leg end torque arm (78) supporting a second articulatable section from a first pair of laterally diverse points (79), said first pair being substantially adjacent a first articulatable section. Furthermore, Hasegawa also discloses a head

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end torque arm (77) being adapted to support a second articulatable section from a pair of laterally diverse points (79), said second pair being substantially adjacent a third articulatable section, with the reasons for both torque arms being to provide the paneled mattress (61, 62, 64) with multiple directions of articulation to prevent patient discomfort and bedsores (col. 1, ln. 11-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have head end and leg end torque arms, as taught by Hasegawa, to provide the bed with multiple types/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 3, Johnston fails to disclose or suggest the following limitations:

- Each said torque arm is independently actuatable.

Hasegawa discloses an articulated bed having a raise-and-lower mechanism comprising a head end torque arm (77) and a leg end torque arm (78), each said torque arm (77, 78) being independently actuatable (col. 9, ln. 34-50) to allow for multiple articulation directions/positions for patient comfort and to prevent bedsores. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have head end and leg end torque arms that are independently actuatable, as taught by Hasegawa, to provide the bed with multiple positions/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 4, Johnston fails to disclose or suggest the following limitations:

- The raise-and-lower mechanism further comprising a leg end jack and a head end jack.

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- Said leg end jack being adapted to actuate said leg end torque arm for raising and lowering of the portion of said second articulatable section adjacent said first articulatable section.
- Said head end jack being adapted to actuate said head end torque arm for raising and lowering of the portion of said second articulatable section adjacent said third articulatable section.

Hasegawa discloses a raise-and-lower mechanism having a leg end jack and a head end jack (71, 73) (col.9, ln.5-19), with the leg end jack being adapted to actuate the leg end torque arm (78) for raising and lowering of the portion of a second articulatable section adjacent a first articulatable section, and the head end jack being adapted to actuate the head end torque arm (77) for raising and lowering of the portion of a second articulatable section adjacent a third articulatable section (col.9, ln.5-50), to allow for multiple articulation directions/positions for patient comfort and to prevent bedsores (col.1, ln.10-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have a raise-and-lower mechanism with head end and leg end jacks, as taught by Hasegawa, to provide the bed with multiple positions/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 5, Johnston fails to disclose or suggest the following limitations:

- Said leg end jack is actuable by a first jack motor.
- Said head end jack is actuable by a second jack motor.

Hasegawa discloses a raise-and-lower mechanism having a leg end jack and a head end jack (71, 73) (col.9, ln.5-19), with both actuated by separate motors (col.9, ln.5-20, ln.34-50), to

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allow for multiple articulation directions/positions for patient comfort and to prevent bedsores (col.1, ln.10-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have a raise-and-lower mechanism with head end and leg end jack motors, as taught by Hasegawa, to provide the bed with multiple positions/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 6, Johnston discloses a bariatric bed wherein:

- Each said jack motor (51) is a linear actuator type motor (col.4, ln.10-15). Johnston only discloses motors producing linear actuation.

As to claim 9, Johnston discloses a bariatric bed wherein:

- Said mattress support (3) comprises a radiolucent section (63).
- Said radiolucent section (63) being adapted to allow radiographic examination of a patient while positioned upon said mattress support (3) (col.4, ln.61-69; col.5, ln.1-10).

As to claim 10, Johnston discloses a bariatric bed wherein:

- Said radiolucent section (63) comprises a radiolucent window through said third articulable section (4) (col.5, ln.5-9).

As to claim 11, Johnston discloses a bariatric bed wherein:

- Said radiolucent window (63) comprises an X-ray cassette tray (col.5, ln.5-7).

As to claim 12, Johnston disclose a bariatric bed wherein:

- Said X-ray cassette tray is adapted to permit insertion and removal of an X-ray film without repositioning of the patient under radiographic examination (col.5, ln.1-9).

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As to claim 15, Johnston discloses a bariatric bed wherein:

- Said articulation mechanism comprises a head-up jack (52) (fig.2) dependently interposed between said second articulatable section (5) and said third articulatable section (4). Motor (51) is located between the two sections, and jack (52) depends from the third articulatable section (4).
- Said head-up jack (52) being adapted to articulate said third section (4) relative to said second section (5) for raising and lowering of the head region of the mattress.

As to claim 16, Johnston discloses a bariatric bed wherein:

- Said articulation mechanism comprises a leg-down jack (50) (fig.2) dependently interposed between said second articulatable section (5) and said first articulatable section (6). Motor (51) is located between the two sections, and jack (52) depends from the first articulatable section (6).
- Said leg-down jack (50) being adapted to articulate said first section (6) relative to said second section (5) for raising and lowering of the leg region of the mattress.

As to claim 17, Johnston discloses a bariatric bed wherein:

- Said head-up jack (52) and leg-down jack (50) are cooperatively adapted to position the mattress support (3) as a cardiac chair (fig.4).

Johnston fails to disclose or suggest the following limitations:

- Articulation mechanism also having a leg end jack and a head end jack.

Hasegawa discloses a raise-and-lower mechanism having a leg end jack and a head end jack (71, 73) (col.9, ln.5-19), to allow for multiple articulation directions/positions for patient comfort and to prevent bedsores (col.1, ln.10-18). It would have been obvious to one of ordinary

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skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have a raise-and-lower mechanism with head end and leg end jacks, as taught by Hasegawa, to provide the bed with multiple positions/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 18, Johnston discloses a bariatric bed wherein:

- Said head-up jack (52) and leg-down jack (50) are cooperatively adapted to articulate the mattress support (3) into a position that facilitates patient ingress and egress over the leg region (6) of the mattress (col.1, ln.50-52; col.6, ln.1-7). The foot step (8) lowers as the foot section (6) is lowered.

Johnston fails to disclose or suggest the following limitations:

- Articulation mechanism also having a leg end jack and a head end jack.

Hasegawa discloses a raise-and-lower mechanism having a leg end jack and a head end jack (71, 73) (col.9, ln.5-19), to allow for multiple articulation directions/positions for patient comfort and to prevent bedsores (col.1, ln.10-18). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have a raise-and-lower mechanism with head end and leg end jacks, as taught by Hasegawa, to provide the bed with multiple positions/directions of articulation, providing patient comfort and relief of bedsores.

As to claim 21, Johnston discloses a bariatric bed further comprising:

- A plurality of laterally adjustable side rails (9).

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- Each said side rail (9) being collapsible to a transport position (fig.2) within the side planes of said frame (2). A non-transport position (fig.4, fig.10) has side rails (9) extended out of the plane of the frame at a 45 degree angle.

As to claim 22, Johnston discloses a bariatric bed wherein:

- At least one said side rail (9) comprises an interiorly positioned, integral bed control (57, 58).
- Said bed control comprising a display and being adapted to effect articulation of said mattress support (3) (col.4, ln.41-44).

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (USPN4409695) in view of Hasegawa (USPN5608932), and further in view of Harrawood (USPN5131105).

As to claim 7, Johnston fails to disclose or suggest the following limitations:

- Said raise-and-lower mechanism is adapted to position said mattress support in up to 10° Trendelenburg.

Harrawood discloses a patient support table able to achieve 10° Trendelenburg (col.6, ln.29-30) because it is commonly known that this position is used to increase blood flow to the upper torso, which is useful in placement of a central line. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to be positioned up to 10° Trendelenburg for placement of a central line.

As to claim 8, Johnston fails to disclose or suggest the following limitations:

- Said raise-and-lower mechanism is adapted to position said mattress support in up to 12° reverse Trendelenburg.

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Harrawood discloses a patient support table able to achieve 12° reverse Trendelenburg (col.6, ln.29-30) because it is commonly known that this position is used to decrease the pressure of the cerebrospinal fluid in the lower spinal cord during treatment of lumbar dural tear. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to be positioned up to 12° reverse Trendelenburg for treatment of a lumbar dural tear.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (USPN4409695) in view of Hasegawa (USPN5608932), and further in view of Poehner (USPN4926457).

As to claim 13, Johnston discloses a bariatric bed wherein:

- X-ray film cassettes are operable from either side of a bariatric bed. The cavity (65) extends from one side of the bed to the other (col.5, ln.1-9).

Johnston fails to disclose or suggest the following limitations:

- Said X-ray cassette tray comprises a mechanism adapted for positioning of an X-ray film within said X-ray cassette.

Poehner discloses a radiolucent hospital bed surface having an X-ray cassette tray (111) comprising a mechanism (112-118) for positioning and adjusting X-ray film within said X-ray cassette (110) (col.9, ln.14-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have an X-ray cassette tray mechanism, as taught by Poehner, to properly position and adjust the X-ray cassette.

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Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (USPN4409695) in view of Hasegawa (USPN5608932), and further in view of Bumbalough (USPN5393938).

As to claim 14, Johnston fails to disclose or suggest the following limitations:

- Said frame further comprises an integral scale.
- Said scale being adapted to determine the weight of a patient positioned upon said mattress support.

Bumbalough discloses an in-bed patient scale because it has become increasingly important in the medical community to monitor fluctuations in a patient's weight over the last couple of years (col.2, ln.12-26). Furthermore, the scale is mounted on a frame (col.3, ln.30-38) so sick patients or bedridden patients are not require to get up from bed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bariatric bed disclosed by Johnston to have an integral scale, as taught by Bumbalough, to track fluctuations in a patient's weight without forcing the patient out of the bed.

Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston (USPN4409695) in view of Hasegawa (USPN5608932), and further in view of Richards (USPN5295276).

As to claim 19, Johnston discloses a bariatric bed further comprising:

- A foot board assembly (83).

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Johnston fails to disclose or suggest the following limitations:

- Said foot board assembly being adapted to articulate relative to said first section, from a resting position, when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation.

Richards discloses a foot board assembly (20) adapted to articulate relative to a leg section, from a resting position, when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation (col.8, ln.25-44) so that a patient may exercise his/her feet by exerting force against the foot board. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the foot board on the bariatric bed disclosed by Johnston with a resilient foot board, as taught by Richards, to allow a patient to exercise his/her feet.

As to claim 20, Johnston fails to disclose or suggest the following limitations:

- Said foot board assembly comprises a dampening member.
- Said dampening member adapted to prevent rapid returns of said foot board assembly to said resting position.

Richards discloses a foot board assembly comprising a dampening member (22) made of fire-retardant foam (col.5, ln.34-37), wherein it is commonly known that foam does not cause rapid return to shape or any great resilient force with resilient force being provided by the connection to the mattress, with the assembly used so a patient can exercise his/her feet. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the foot board on the bariatric bed disclosed by Johnston with a foot board having a dampening member, as taught by Richards, to allow a patient to exercise his/her feet.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN4324010 to Houlberg discloses a drive unit for adjustable beds,

USPN4793428 to Swersey discloses a hospital weight bed with integral scale.

USPN5148562 to Borders discloses a birthing bed adjustable to Trendelenburg positions.

USPN5732423 to Weismiller discloses bed side rails.

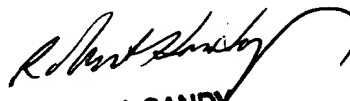
USPN5745937 to Weismiller discloses support surfaces for a bed.

USPN5933888 to Foster discloses a hospital bed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Y. Ho whose email address is thomas.ho@uspto.gov and telephone number is (703) 305-4556. The examiner can normally be reached on M-F 9:30AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-3366.

TYH
August 23, 2002


ROBERT J. SANDY
PRIMARY EXAMINER